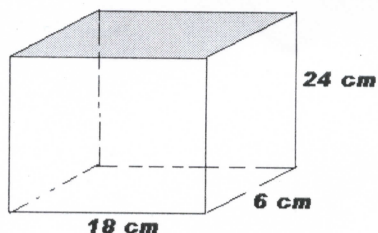


# Name Answer Key

## Unit 11 Worksheet #2 – Volume of Prisms

Find the volume. Round to the hundredths place if necessary.

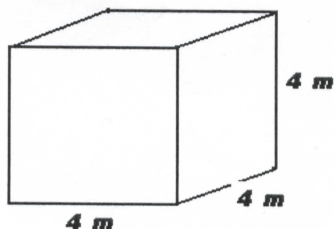
1.



$$V = 18 \cdot 6 \cdot 24$$

Volume  $2592 \text{ cm}^3$

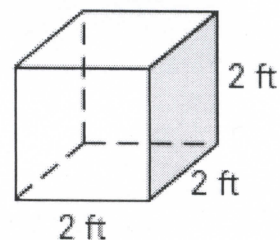
2.



$$V = 4 \cdot 4 \cdot 4$$

Volume  $64 \text{ m}^3$

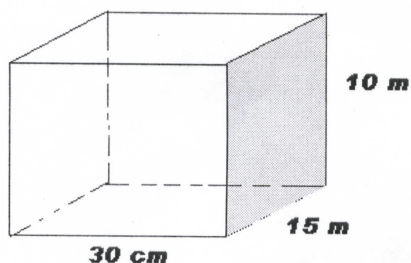
3.



$$V = 2 \cdot 2 \cdot 2$$

volume  $8 \text{ ft}^3$

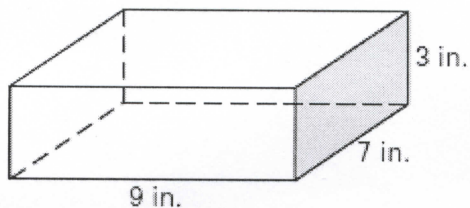
4.



$$V = 30 \cdot 15 \cdot 10$$

Volume  $4500 \text{ cm}^3$

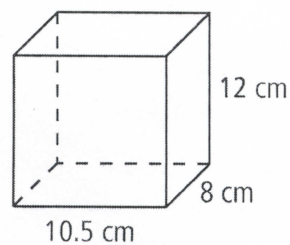
5.



$$V = 9 \cdot 7 \cdot 3$$

Volume  $189 \text{ in}^3$

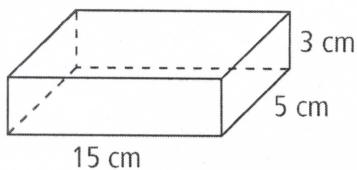
6.



$$V = 10.5 \cdot 8 \cdot 12$$

volume  $1008 \text{ cm}^3$

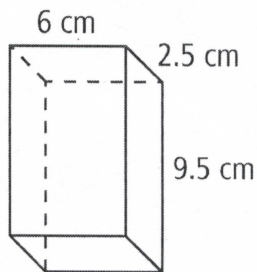
7.



$$V = 15 \cdot 5 \cdot 3$$

Volume  $225 \text{ cm}^3$

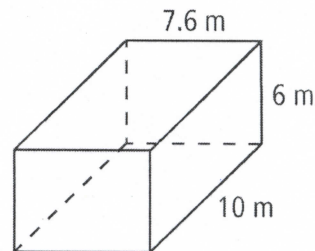
8.



$$V = 6 \cdot 2.5 \cdot 9.5$$

Volume  $142.5 \text{ cm}^3$

9.

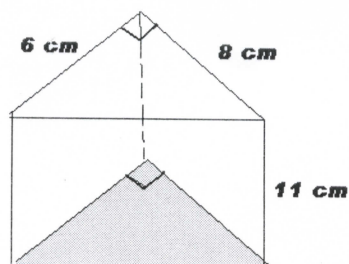


$$V = 7.6 \cdot 6 \cdot 10$$

volume  $456 \text{ m}^3$

For #10 -15, find the volume. Use the triangle as the base and round to the hundredths place.

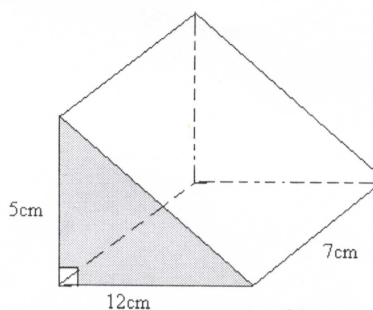
10.



$$V = \frac{1}{2} \cdot 6 \cdot 8 \cdot 11$$

Volume 264 cm<sup>3</sup>

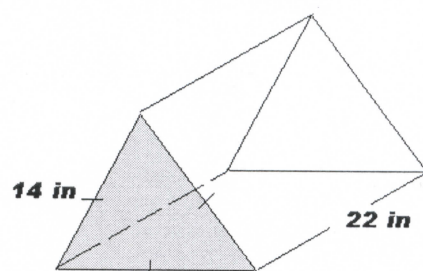
11.



$$V = \frac{1}{2} \cdot 5 \cdot 12 \cdot 7$$

Volume 210 cm<sup>3</sup>

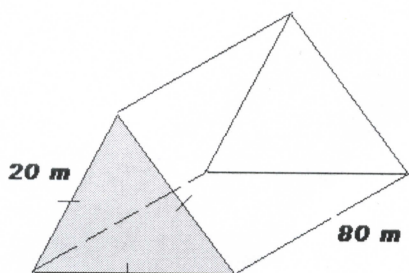
12.



$$V = \frac{14\sqrt{3}}{4} \cdot 22$$

volume 1867.15 in<sup>3</sup>

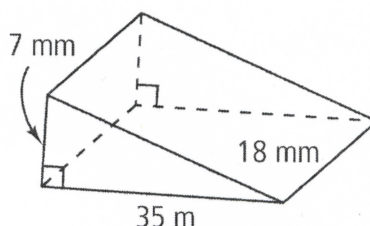
13.



$$V = \frac{20\sqrt{3}}{4} \cdot 80$$

Volume 13,856.41 m<sup>3</sup>

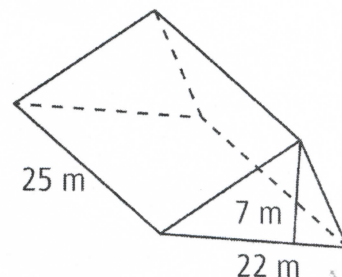
14.



$$V = \frac{1}{2} \cdot 7 \cdot 35 \cdot 18$$

Volume 2205 m<sup>3</sup>

15.



$$V = \frac{1}{2} \cdot 22 \cdot 7 \cdot 25$$

volume 1925 m<sup>3</sup>

16. In a rectangular prism, the length is 7 ft and the height is 12 ft. If the volume of the prism is 1260 ft<sup>3</sup>, find the other dimension (width).



$$V = L \cdot W \cdot H$$

$$1260 = 7 \cdot 12 \cdot H$$

$$1260 = 84H$$

$$H = 15 \text{ ft.}$$

17. In a rectangular prism with bases that are equilateral triangles, the length of one side of the triangle is 8 cm. If the volume is approximately 387.94 cm<sup>3</sup>, find the height of the prism.



$$A = \frac{s^2\sqrt{3}}{4} \cdot H$$

$$387.94 = \frac{8^2\sqrt{3}}{4} \cdot H$$

$$387.94 = 27.71 \cdot H$$

$$H = 14 \text{ cm}$$

18. In a rectangular prism the length is 6 inches and the width is 14 inches. If the volume is 924 in<sup>3</sup>, find the other dimension (height)



$$V = L \cdot W \cdot H$$

$$924 = 6 \cdot 14 \cdot H$$

$$924 = 84 \cdot H$$

$$H = 11 \text{ in.}$$